

We Claim

1. A golf learning aid capable of being worn by an individual, comprising:
  - a sensor capable of sensing an angle formed between an axis passing generally through the individual's spine and vertical;
  - a manual control for the individual to select a maximum spine angle from a range of maximum allowable spine angles;
  - an indicator for providing one or more perceptible indications;
  - a controller capable of: a) monitoring said sensor and determining whether said angle is greater than or less than said maximum spine angle, and b) sending information to said indicator to produce a first indication when said angle is greater than or less than said maximum spine angle.
2. A golf learning aid as recited in claim 1, said controller further being capable of sending information to said indicator to produce a second indication, said second indication being a metronome cadence repeating at a user-defined tempo.

3. A golf learning aid as recited in claim 1, wherein the golf learning aid is worn on the individual's head.
4. A golf learning aid as recited in claim 1, said controller further capable of determining a time at which the individual appears ready to perform a golf swing, said controller sending said information to said indicator to produce said second indication after said time.
5. A golf learning aid as recited in claim 2, further comprising an actuator for being actuated by the individual, the controller sending information to said indicator to continuously produce said second indication upon actuation of said actuator by the individual.
6. A golf learning aid as recited in claim 1, said controller further capable of determining a time at which the individual appears ready to perform a golf swing, said controller sending said information to said indicator to produce said first indication when said angle is outside of said maximum spine angle range after said time.
7. A golf learning aid as recited in claim 1, wherein said sensor is an accelerometer capable of sensing acceleration in the direction of

gravity.

8. A golf learning aid as recited in claim 1, wherein said maximum spine angle range is adjustable by the individual.
9. A golf learning aid as recited in claim 1, wherein said indicator is a sound generator including an earpiece adapted to be worn in an ear of the individual.
10. A golf learning aid capable of being worn by an individual in fixed position, comprising:
  - a sensor capable of sensing an angle formed between an axis passing generally through the individual's spine and vertical;
  - an indicator for providing one or more perceptible indications;
  - a controller for receiving information from said sensor, said controller being capable of sending information to said indicator to produce a first indication when said angle is outside of a maximum spine angle range, and said controller being capable of sending information to said indicator to

produce a second indication different than said first indication, said second indication being a metronome cadence repeating at a user-defined tempo.

11. A golf learning aid as recited in claim 10, said controller further capable of determining a time at which the individual appears ready to perform a golf swing, said controller sending said information to said indicator to produce said second indication after said time.
12. A golf learning aid as recited in claim 10, further comprising an actuator for being actuated by the individual, the controller sending information to said indicator to continuously produce said second indication upon actuation of said actuator by the individual.
13. A golf learning aid as recited in claim 10, said controller further capable of determining a time at which the individual appears ready to perform a golf swing, said controller sending said information to said indicator to produce said first indication when said angle is outside of said maximum spine angle range after said time.
14. A golf learning aid as recited in claim 10, wherein said sensor is an

accelerometer capable of sensing acceleration in the direction of gravity.

15. A golf learning aid as recited in claim 10, wherein said maximum spine angle range is adjustable by the individual.
16. A golf learning aid as recited in claim 10, wherein said indicator is a sound generator including an earpiece adapted to be worn in an ear of the individual.
17. A golf learning aid as recited in claim 10, wherein the golf learning aid is worn on the individual's head.
18. A golf learning aid as recited in claim 17, further comprising a cap for fixedly supporting the golf learning aid on the individual's head, said sensor, said indicator and said controller being mounted on said cap.
19. A golf learning aid capable of being worn on an individual's head, comprising:  
  
a sensor capable of sensing an angle formed between  
  
an axis passing generally through the individual's spine and

vertical;

a sound generator capable of producing one or more audible sounds;

a controller capable of: a) monitoring said sensor and determining whether said angle is outside of a maximum spine angle range, b) sending information to said sound generator to produce a first audible sound when said angle is outside of said maximum spine angle range, c) sending information to said sound generator to produce a second audible sound, said second audible sound being a metronome cadence repeating at a user-defined tempo, and d) receiving an indication from the individual causing said controller to stop sending information to said sound generator to produce said first audible sound and to send information to said sound generator to produce only said second audible sound.

20. A golf learning aid capable of being worn on an individual's head, comprising:

an accelerometer capable of sensing a change in an angle formed between an axis passing generally through the individual's spine and vertical;

a sound generator capable of producing one or more audible sounds; and

a controller capable of: a) monitoring said accelerometer and determining when said angle is outside of a maximum spine angle range, b) sending information to said sound generator to produce an audible sound when said angle is outside of said maximum spine angle range.

21. A golf learning aid as recited in claim 20, said controller further capable of determining a time at which the individual appears ready to perform a golf swing, said controller sending said information to said sound generator to produce said audible sound when said angle is outside of said maximum spine angle range after said time.

22. A golf learning aid capable of being worn on an individual's head, comprising:

an accelerometer have an axis of sensitivity and a width dimension perpendicular to said axis of sensitivity, said accelerometer capable of sensing a change in an angle formed between said axis of sensitivity and the vertical regardless of an angular orientation of the width dimension

around said axis of sensitivity, said accelerometer mounted in the learning aid on the individual's head with the axis of sensitivity being coaxial or parallel to an axis passing generally through the individual's spine;

a sound generator capable of producing one or more audible sounds; and

a controller capable of: a) monitoring said accelerometer and determining when said angle is outside of a maximum spine angle range, b) sending information to said sound generator to produce an audible sound when said angle is outside of said maximum spine angle range.

23. A golf learning aid as recited in claim 22, wherein said accelerometer is mounted at or near an uppermost portion of the individual's head.
24. A golf learning aid as recited in claim 22, further comprising a cap for fixedly supporting the golf learning aid on the individual's head, said accelerometer, said sound generator and said controller being mounted on said cap, said accelerometer being mounted at or near an uppermost portion of said cap when worn by the individual.

25. A method of improving an individual's golf swing, comprising the steps of:
- (a) sensing data relating to an angle formed between an axis passing generally through the individual's spine and vertical;
  - (b) storing the data sensed in said step (a) in memory;
  - (c) filtering out data stored in said step (b) if the data is outside of a predetermined range; and
  - (d) determining when the angle is outside of a maximum spine angle range based on the data stored in said step (b) and the data filtered in said step (c).
26. A method as recited in claim 25, wherein said step (c) of filter out data comprises the step of passing the data through a low pass filter to filter out any data above a predetermined level.
27. A method as recited in claim 26, wherein said step (c) of filter out data further comprises the step of passing the data through a high pass filter to find data below a predetermined level.
28. A method of improving an individual's golf swing, comprising the

steps of:

(a) sensing an angle formed between an axis passing generally through the individual's spine and the vertical;

(b) selecting a maximum spine angle from a range of maximum allowable spine angles;

(c) determining whether said angle is greater than or lesser than said maximum spine angle; and

(d) generating a first indication when said angle is greater than or lesser than said maximum spine angle.

29. A method as recited in claim 28, further comprising the step (e) of generating a second indication, said second indication being a metronome cadence repeating at a user-defined tempo.